

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of November 17, 2003 is respectfully requested.

In order to make necessary editorial corrections, the entire specification and abstract have been reviewed and revised. As the revisions are quite extensive, the amendments to the specification and abstract have been incorporated into the attached substitute specification and abstract. For the Examiner's benefit, a marked-up copy of the specification indicating the changes made thereto is also enclosed. No new matter has been added by the revisions. Entry of the substitute specification is thus respectfully requested.

The Examiner has rejected elected claim 12 as being anticipated by the Inagaki '146 reference (USP 5,280,146); and has rejected claim 12 as being anticipated by the Inagaki '821 reference (USP 5,399,821). However, the original claims, including elected claim 12, have now been cancelled and replaced with new claims 14-22. In this regard, each of new claims 14-22 read on the elected invention. For the reasons discussed below, it is respectfully submitted that new claims 14-22 are clearly patentable over the prior art of record.

Page 2 of the original specification for the present application includes a discussion of the problems concerning conventional methods of manufacturing key top plates. In particular, conventional methods include simply forming a key top body on the lower surface of a single film plate, but not providing a second film plate on the bottom surface of the key top body. As a result, the key top body is easily detached from the film plate (see page 2, lines 20-24 of the original specification).

The present invention has been developed in order to address the problems regarding the prior art as discussed above. Specifically, the method of manufacturing a key top plate as recited in new independent claim 14 comprises clamping a first film plate and a second film plate between a first die and a second die, and the first die and the second die are shaped and arranged to form a key top cavity therebetween. Molten mold-resin is injected into the key top cavity between the first film plate and the second film plate so as to fill the key top cavity to thereby form a mold-resin key top body with the first film plate attached to a top surface of the key top body and with the second film

plate attached to a bottom surface of the key top body. The first die and the second die are removed after the molten mold-resin has set so as to obtain a key top that includes the key top body, the first film plate attached to the top surface of the key top body, and the second film plate attached to the bottom surface of the key top body. As a result, as explained on page 14, lines 10-15 of the original specification, the first film plate and the second film plate prevent the key top body from becoming detached.

The Inagaki '146 reference discloses a method of manufacturing a key top including a key top body 12-4b. The Examiner asserts that the Inagaki '146 reference discloses forming the key top with upper and lower resin sheets, and refers to column 10, lines 8-18 in this respect. However, the portion of the Inagaki '146 reference cited by the Examiner refers to Figure 18, and describes an arrangement in which an upper resin sheet 16-5 is spaced apart from a lower resin sheet 17-5 by a spacer 18-5. Furthermore, the inner surface of the upper resin sheet 16-5 has a moveable contact 16-5a formed thereon, and the inner surface of the lower resin sheet 17-5 has a fixed contact 17-5a formed thereon. However, this portion of the Inagaki '146 reference does not describe forming a key top by clamping a first film plate and a second film plate between a first die and a second die, and then injecting molten mold-resin between the first film plate and the second film plate as recited in new independent claim 14. In fact, as described in column 8, lines 6-53, and illustrated in Figures 16A and 16B, the Inagaki '146 reference discloses clamping only a single film plate 10-3 between a first die and a second die, and then injecting resin between the first die and the second die so that the film plate 10-3 is attached to a top surface of the key top body. Moreover, it is submitted that the Inagaki '146 reference does not disclose or even suggest clamping a first film plate and a second film plate between a first die and a second die, and injecting molten mold-resin between the first film plate and the second film plate, as recited in new independent claim 14.

The Inagaki '821 reference discloses a method of manufacturing a key top. As explained in column 5, lines 22-53, and illustrated in Figure 3, the Inagaki '821 reference discloses arranging a *single* resin film 30 between a first die 81 and a second die 91, and then injecting resin into the cavity to form a key top body 20 having the resin film 30 formed on only the top surface of the key top body 20. The Inagaki '821 reference does not, however, disclose or even suggest clamping a first

film plate and a second film plate between a first die and a second die, and injecting molten mold-resin between the first film plate and the second film plate as recited in new independent claim 14.

As explained above, the Inagaki '146 reference and the Inagaki '821 reference do not, either alone or in combination, disclose or suggest a method of manufacturing a key top body that comprises injecting molten mold-resin between a first film plate and a second film plate as recited in new independent claim 24. Therefore, one of ordinary skill in the art would not be motivated to modify or combine the references so as to obtain the invention recited in new independent claim 14. Accordingly, it is respectfully submitted that new independent claim 14 and the claims that depend therefrom are clearly patentable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. However, if the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact the Applicant's undersigned representative.

Respectfully submitted,

Tatsuya OKAMURA et al.

By: 

W. Douglas Hahm

Registration No. 44,142

Attorney for Applicants

WDH/gtg
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
March 17, 2004